11. Thanksgiving

Program Name: Thanks.java   Input File: thanks.dat

Cooper and his colonists have landed on a new planet to settle, and Thanksgiving is just around the corner. Cooper wants to keep Thanksgiving as close to the old Earth as possible, so he tries to find alien creatures similar to turkeys. He ends up finding a couple that have arms like wings, legs like drumsticks, and meat like turkey breast meat.

To satisfy his colonists, he takes each of their orders for Thanksgiving, which consists of the number of wings they want, the number of drumsticks they want, and the number of pounds of breast meat they want. After doing this, Cooper finds several species of alien creatures with similar enough physical similarities. Each fully grown adult alien has a number L of legs that are similar to drumsticks, a number A of arms that are similar to wings, and B pounds of breast meat.

Since it is really hard to breed, raise, and feed an alien species, Cooper only wants to choose one to domesticate. He wants to choose the species that he will have to raise the least number of to fulfill the Thanksgiving order. Which species should he choose?

Input
The first line of input contains T, the number of test cases that follow.

The first line of each test case will be a single integer C, the number of colonists in Cooper's colony. The next C lines describe the Thanksgiving order of each colonist. Each line contain 3 space separated integers: cL, cA, and cB, the number of each type of meat the colonist wants for Thanksgiving dinner.
The next line of each test case contains a single integer N, the number of suitable species Cooper has found.
The next N lines describe the meat produced from each species. Each line contains a string, the name of the species, and then three space separated integers: L, A, and B, as described above.

Output
For each test case, print the name of the species that fulfills the Thanksgiving order with the least number of individuals of that species. It is guaranteed that at least one species will be able to fulfill the order, and that there will be a unique "best" species.

Constraints
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1 <= T <= 10
1 <= C, N <= 10
1 <= cL, cA, cB, L, A, B <= 1000
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